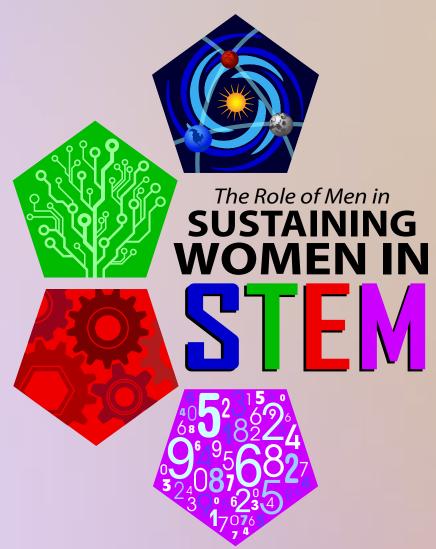


SUSTAINING WOMEN IN STEM

Roundtable Discussion and Policy Forum September 7, 2017



Presented by NASA's Goddard Space Flight Center,
Lockheed Martin Corporation and Northrop Grumman Corporation







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SUSTAINING WOMEN IN STEM CHAMPIONS



Robert Lightfoot, Acting Administrator, NASA

Robert Lightfoot became NASA's acting administrator on Jan. 20, 2017. He currently serves as the agency's associate administrator, a position he has held since 2012. Lightfoot was previously the director of NASA's Marshall Space Flight Center in Huntsville, Alabama, managing a broad range of propulsion, scientific and space transportation activities.



Christyl Johnson, Deputy Director for Technology and Research Investments, NASA's Goddard Space Flight Center

Since December 2010, Christyl Johnson has managed NASA's Goddard Space Flight Center's research and development portfolio; formulated the center's future science and technology goals in Earth science, astrophysics, heliophysics, planetary science, and space communications and navigation; and led an integrated program of investments aligned to meet those goals.



Lisa Callahan, Vice President and General Manager, Civil and Commercial Space, Lockheed Martin

Lisa Callahan is vice president and general manager of the civil and commercial space line of business for Lockheed Martin's Space Systems Company. She has executive responsibility for national space programs relating to human spaceflight and space science missions, including planetary, solar, astrophysical and Earth remote sensing for civil government agencies.



Linnie Haynesworth, Vice President and General Manager, Cyber and Intelligence Mission Solutions, Northrop Grumman

Linnie Haynesworth is vice president and general manager of the Cyber and Intelligence Mission Solutions Division for Northrop Grumman's mission systems sector. She has executive responsibility for the overall growth and program activities of the division's business portfolio, including full-spectrum cyber, multienterprise data management and integration.

KEYNOTE SPEAKERS



Matt Wallaert, Chief Behavioral Officer, Clover Health

Matt Wallaert is a behavioral scientist and entreprenur focused on building products and programs that change behavior to help people lead better, happier lives. He began his career in academia and built and sold two startups, later moving to Microsoft to build products on a larger scale. Wallaert continues to build side projects which address social inequities, particularly as they relate to gender and race.



Wendy Morton-Huddleston, Principal, Public Sector, Grant Thornton, LLP

Wendy Morton-Huddleston has more than 16 years of experience working with a diverse group of public sector and not-for-profit institutions. She works with C-suite executives on multidisciplinary levels of scope, magnitude, complexity and engagement team composition. She is an executive sponsor of the Women at Grant Thornton initiative.



Sam Yen, Chief Design Officer, SAP

As SAP's chief design officer, Sam Yen leads a wide variety of initiatives that reaffirm the company's commitment to innovation and design. Under his leadership, SAP has won more than 20 design awards. Yen is also an associate consulting professor at the Stanford d.school, teaching courses that help organizations scale creativity and innovation in their operations.

PARTICIPATING ORGANIZATIONS AND COUNTRIES

- a.i. solutions
- Aerojet Rocketdyne
- Aerospace Industries Association
- Amazon Web Services
- ATA Aerospace
- BEST
- Challenger Center
- Clover Health
- Columbus Technologies and Services, Inc.
- Department of Housing and Urban Development
- Department of Veterans Affairs
- Element 84
- ERT, Inc.
- Fibertek, Inc.
- General Dynamics
- Genesis Engineering Solutions, Inc.
- Girls Inc.
- Global NGY Scholars
- Grant Thornton
- IDA Science and Technology Policy Institute
- Innovim
- Interaction Traction, Inc.
- InuTeq LLC
- Jacobs
- Lockheed Martin
- Logistics Management Institute
- Lowenstein & Associates, Inc.
- NASA
- NASA's Goddard Space Flight Center
- NASA's Langley Research Center
- Nathan Associates
- National Academies of Sciences, Engineering, and Medicine
- National Academy of Sciences
- National Institute of Aerospace
- National Institute on Aging
- National Oceanic and Atmospheric Administration
- National Science Teachers Association

- Northrop Grumman Corporation
- NTT Data
- Office of Personnel Management
- Orbital ATK
- PBS Kids
- Purdue University
- SAP
- Scribe
- Sierra Lobo, Inc.
- SSAI
- STEMconnector
- Telophase
- The Aerospace Corporation
- The George Washington University
- The MITRE Corporation
- ULA
- Universities Space Research Association
- Vantage Systems

In addition, individuals from the following nations tuned into the event via webcast:

- Bahrain
- France
- Germany
- Kenya
- Poland
- Romania
- Sweden
- Thailand
- United Kingdom
- United States

MESSAGE FROM CHRISTYL JOHNSON



Looking back on my career at NASA, I do so with a sense of gratitude and humility, knowing that not only was my path set forth by predecessors both male and female, but that many have guided me along the way. In these moments of introspection, I realize that many women have not been as fortunate, lacking either the resources, the guidance or the opportunities to maximize their potential in STEM careers. Many others, for better or worse, succumb to stereotypes on what they should or should not do with their lives – starting as early as elementary school.

We began the women in STEM roundtable in 2016 to be a catalyst for change on this matter, laying the groundwork for solutions to address the obstacles to progress, and more importantly, making a personal

commitment to each other to do something about them. The conversation has been set into motion, and we knew it would be equally important to maintain the momentum if we were to achieve any lasting impact.

One of the key missing components during the first dialogue was the role that men play in sustaining women in STEM, and there were many men who expressed an interest in engaging in the dialogue with a committed eye on increasing diversity in the STEM workforce. Therefore, for this year's gathering, we decided to hone in on the role of men in sustaining women in STEM. We know that despite the disparities in the gender makeup, the issue of women in STEM is inclusive of both men and women and requires commitment from both to make a change. From mentorship and leadership to battling our own internal biases, the journey will be one in which we'll have to work together side by side.

Men have played a significant role in my own career progress, and I know from past and current experience that we all have a part to play. Hopefully, what we've learned from this event will translate into more actions that will bring greater equality into the workplace.

Christyl Johnson
Deputy Director for Technology and Research Investments
NASA's Goddard Space Flight Center

EXECUTIVE SUMMARY

Last year, NASA's Goddard Space Flight Center and Lockheed Martin spearheaded an event to find ways to widen the STEM pipeline for female minds, from students to those in senior management. Entitled "Sustaining Women in STEM," the roundtable discussion and policy forum brought together leaders across industry, government, academia and the nonprofit sector to lay out all the issues that women face in today's STEM landscape. From a lack of mentors and training to cultural stereotypes, the event set into motion a robust discussion for moving the needle on this issue.

A year later, bringing Northrop Grumman into the fold, Goddard and Lockheed sought ways to leverage momentum from this initial gathering



and decided to convene STEM leaders once again, this time focusing on the role of men in sustaining women in STEM. As discussed during the inaugural event, men play a critical role in supporting the advancement of their female counterparts. In professions traditionally dominated by men, the perceptions and actions of those in charge can be vital in determining how diverse and inclusive their organizations can become.

Taking place on Sept. 7, 2017, at Lockheed Martin's Global Vision Center in Arlington, Virginia, the latest event featured more than 50 organizations from across the STEM spectrum and included online participation from 10 countries. To ensure an inclusive debate, our panel was comprised of both men and women from government and industry. Similar to the structure of the 2016 roundtable, five breakout sessions engaged attendees on deeper issues: diversity and equity, mentorship and advocacy, microinequities, training and empowerment, and the workplace environment.

Despite our best efforts, we are acutely aware that more needs to be done to expand opportunities and achieve better gender balance across STEM fields. These discussions are a starting point, not an end point, but we know we must keep the conversation going.

We invite you to read through the rest of this report in detail to learn how we're continuing to address the challenges that remain.

HIGHLIGHTS FROM THE KEYNOTE SPEAKERS



Matt Wallaert – Chief Behavioral Officer, Clover Health

An academic by training, Matt Wallaert underscored the need for behavior change in helping women make progress in STEM careers, citing how his experience with data shed light on the problems plaguing female advancement. This change, he argues, pertains both to women in the workplace and those from the outside, particularly men, who have certain socialized perceptions about the roles and limitations of women in all facets of life.

Wallaert is now an entrepreneur who has built startups addressing social inequities as they relate to gender and race. They are byproducts of his academic research, with data being used to drive solutions to the underlying issues.

In researching the gender pay gap, for example, Wallaert found that women were less likely than men to ask for raises, and even less likely to get them when they did ask. In response, Wallaert created GetRaised, which has helped close the gap by teaching women how to ask for salary increases. The platform has increased wages by a total of more than \$2 billion to date.

He briefly discussed similar projects in operation, such as SalaryOrEquity.com, which teaches women about the benefits of receiving equity in a company. He said that he continues to design such products

to close the dichotomy between how the world is and how we want the world to be. Furthermore, Wallaert emphasized the need to take action on issues instead of simply engaging in lofty conversations.

He cautioned, however, that platforms such as GetRaised are just one step to broader progress. Everyone has a role in getting men to care more about their female counterparts, and this can be done by making personal and emotional connections to their own relevant experiences. He argues that once men begin to care more, the problems will begin to correct themselves. If we better understand

getting men to care
more about their female
counterparts, and this
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why men become feminists, we can more quickly shift the burden of dismantling sexism to those who benefit from it and off of those are disadvantaged. Because in the end, people are the solution, not data.

Wendy Morton-Huddleston – Principal, Public Sector, Grant Thornton LLP



Wendy Morton-Huddleston expressed pride as a Grant Thornton principal who is passionate about advancing diversity and inclusion. "A Grant Thornton value that I embrace is leadership. I advocate for teammates to lead by representing Grant Thornton in a way that brings our brand to life and distinguishes us in the marketplace," she said. "A differentiator is our culture and commitment to enhancing diversity. Diversity is a business imperative to actively cultivate a culture we are proud of and believe in."

Grant Thornton's vision is to be the leading accounting firm serving dynamic organizations. To do that, it has focused its efforts around five strategic drivers of success: revenue growth, operational excellence, distinctive client service, talent and brand. "Gender diversity is a cornerstone of these drivers. The research is compelling: Gender diversity increases financial performance, improves problem-solving, enhances creativity, boosts employee satisfaction and retention, and enriches brand perception in the marketplace," added Morton-Huddleston.

The Women at Grant Thornton and Allies Business Resource Group's (BRG) mission is to enhance the recruitment, retention and advancement of women into leadership positions. Since the launch of the Women at Grant Thornton BRG in 2004, female partners have

Gender diversity increases financial performance, improves problem-solving, enhances creativity, boosts employee satisfaction and retention, and enriches brand perception in the marketplace.

more than tripled, now representing 20 percent of partners and principals. This was accomplished through proactive pipeline focus, programs such as sponsorship mentor-protégé pairings and gender parity in leadership development programs.

At Grant Thornton, BRGs serve as vital focus groups for extending its culture of inclusion. They enable the firm to better understand its increasingly diverse clients and marketplace, connect colleagues with each other, recruit and retain diverse talent, and equip leaders to confront and mitigate individual and systematic bias. BRGs leverage internal and external stakeholders to achieve measureable, solution-driven goals aligned with the firm's strategic drivers and diversity and inclusion strategy.

Examples of successful Grant Thornton programs are the following:

- Mentor Moms Helps guide new mothers' transition to maternity leave and return to work by connecting them with other working mothers for career guidance, insights and advocacy.
- Mentor Circles Designed to promote organic and meaningful relationships among women in a group setting. The program's objective is to build reciprocal mentoring relationships among women from a variety of backgrounds, service lines (audit, advisory, tax), and experience levels.
- Safe Space A visible, culturally competent peer mentoring, coaching and role modeling program for LGBT colleagues and allies at Grant Thornton. The program connects LGBT colleagues and allies personally and professionally and supports organic networking and professional growth opportunities.

Sam Yen - Chief Design Officer, SAP

Sam Yen began his presentation asking attendees to engage in an implicit-association test, having them raise their hands when certain words or terms – such as "male," "female," "liberal arts" and "science" – pertained to them. Prior to becoming SAP's chief design officer, Yen started his career in aerospace, and diversity and inclusion were relatively new concepts to him. It was through this test that Yen first recognized the power of unconscious bias, reaffirming for him the idea that 99 percent of decisions are made by the emotional brain rather than the rational brain.



In striving toward diversity, Yen suggested looking at it as a business opportunity rather than a burden, saying that 85 percent of entrepreneurs agree that diversity results in the most innovative ideas

He pointed to the lack of diversity in Silicon Valley, where he has spent much of his career. Back when he studied at Stanford University's aerospace engineering department, only 7 percent of students were women. The area's workforce is 71 percent male and 29 percent female.

In striving toward diversity, Yen suggested looking at it as a business opportunity rather than a burden, saying that 85 percent of entrepreneurs agree that diversity results in the most innovative ideas. He refers to diversity in many forms: gender, age, race and ethnicity.

Companies, however, must work to avoid token hires. This can be done by addressing the issue of inclusion and not just diversity itself. Small steps can be taken to make work environments more inclusive, such as looking at nuances in an office culture which can perpetuate stereotypes: gender roles, gender preferences, etc.

Q&A DIALOGUE WITH PANELISTS

Attendees were given the opportunity to engage the panel in a question-and-answer session. Select questions are listed below along with accompanying responses:

Matt, through your research, what was the response of women when it comes to bias?

Wallaert: The preponderance of women saw problems in the world. The majority of women saw problems in the workplace. Many men see it as a problem externally and not necessarily internally. It's really hard for people to see it as proximal to them because it can mean somehow that you're complicit. That's a hard emotional realization. Everyone believes that where they are is inclusive. We have to be aware and emotionally connected to the fact that it happens.



What is your advice when people deny that bias exists?

Morton-Huddleston: Gender inclusion and parity result from conscious behaviors. Thinking affects behaviors. We educate leaders on effective culture and inclusion principles and invest in management and leadership training programs to respect individual differences.

Lightfoot: You have to have a process that makes you self-aware. When people say there aren't biases, they have to be able to relate as to why they do certain things. You can point out to people little biases by personalizing it.

Yen: There's a carrot-on-a-stick moment – an a-ha moment. And sometimes it's best to bring in an external speaker to address the issue.

Are there any infusion programs at your workplaces that help women return to work after having a child, etc.?

Lightfoot: At NASA, we deal with the "leaky pipeline" in which some leave the workforce to have kids, and many aren't induced to come back. I like the concept of so-called "returnships," but you have to be mechanical with these things until they become natural. Returnships can be a formal process as opposed to simply welcoming someone back.

Wallaert: There's data that suggest that men who take parental leave, even if it's just a week, have spouses who are more likely to return to the workplace. Hence, we should encourage men to take parental leave as well.

How do we make sure that we're not pigeonholing women into certain jobs?

Yen: By pushing more women into leadership roles, that's how you create change throughout an entire company, not simply by tracking numbers of women in the workforce. If the intent is in the right direction, you start to see progress.

Wallaert: Don't just look at things like the salary gap. Look at larger things such as promotional philosophies to account for things such as time in role. And look at the possibilities for men managing women and women managing men.

Morton-Huddleston: At Grant Thornton, we have cultivated a workplace where women thrive as leaders. Our innovative training practices, skills coaching and culture of inclusion in which employees are encouraged to bring their whole selves to work are at the center of everything we do. It is these investments that attract women to our firm, enable women to succeed here, and encourage women to stay and grow with us. We are fostering advancement through industry-leading training and accountability programs. In fact, according to Working Mother's 2017 scorecard, Grant Thornton is the No. 1 company for company culture and work-life programs for manager training and accountability. We are proud of this acknowledgement, as it recognizes the progress made with our culture journey.

What are your perspectives on women as influencers, whether or not they occupy leadership roles?

Lightfoot: Influence leaders are the best leaders we have. Positions have nothing to do with being a leader. At NASA, we have people who are leading all the time as influencers. It isn't something that is gender specific. If people have an impact on an outcome regardless of position, they should take satisfaction in that.

Wallaert: Incumbent leaders also need to open themselves up to influence. For example, if leaders, who are mostly white men, aren't opening themselves up to young women of color, then how will they ever overcome biases as they relate to such individuals? We can take conscious intervention as leaders to go out and seek opportunities to hear from the experiences of all people. That is what helps us become better leaders.

How far have we come? The data and anecdotal evidence vary.

Wallaert: Data show better cross-gender leadership. Data show that we've closed the wage gap. But there are places we've done well and places where we haven't. When you look at data, the general direction has been progressive despite setbacks along the way, and we have to take emotion out of the assessment to realize that the line will continue to go up and to the right and that we have control.

Lightfoot: We aren't necessarily moving as fast as we want to move, but this is more of a journey and not just a final destination. We want to keep the slope of the curve in the right direction. The fact that we're having this conference suggests we aren't as far as we should be. But if we stop thinking about it, we may end up going the wrong way.

What role can fathers play in helping create future STEM daughters?

Lightfoot: I involved my kids in everything that I'm doing. Be passionate about what you're doing, no matter what it is. We have to be careful not to force someone into a passion. You have to be realistic and flexible with your children and allow them to have a diversity of experiences.

Yen: Don't pigeonhole your daughter into a specific category. Don't push them into STEM for the sake of pushing them into STEM. Let them be exposed to many different things. Don't make them lock in their decisions early.

How do we move and position women along the pipeline, not just at the beginning and the end, to make them the next leaders?

Morton-Huddleston: Since the launch of the Women at Grant Thornton Business Resource Group in 2004, the number of female partners has more than tripled, now representing 20 percent of partners and principals. This was accomplished through proactive and intentional pipeline focus, programs such as sponsorship mentor-protégé pairings, and gender parity in leadership development programs.

Wallaert: I look at my mother, a nurse, who cared so much about patient outcomes that she went into nurse informatics. In seeking the position, there wasn't much talk about her management background up to that point. Find out what women care about, and don't focus too much on their desire to go into management or other similar matters. Use their passions, and from there they can have an influence.

Yen: Look for outside opportunities where you can play more leadership roles. A lot of leaders at SAP also serve on boards. Get experience. You can't become a leader if you don't practice, and there are a lot of opportunities to get that experience, inside and outside of your job.

How do you balance the competing priorities for career advancement? In academia, for example, you need to research, publish and teach, but also fulfill other duties such as devising diversity and inclusion plans.

Morton-Huddleston: The Grant Thornton Leadership Academy is our industry-leading approach to developing and grooming a diverse pipeline of high-performing talent, from managers to partners. This program helps us grow the next generation of leaders we need to become the firm of the future. The Senior Manager Academy provides the opportunity and forum to accelerate one's path to partner through an innovative development journey of assessments, challenging assignments and rotational practicums that enable senior managers to experience what it means to be a partner and to effectively prepare.

Lightfoot: We all have a mental Rolodex: This problem equals this person. We should think about other people who can do the same task. Perhaps other people should get other opportunities. When we have good hires, there can be a tendency to ignore others because we aren't giving them enough work. To create change, you really have to be intentional and give other people chances.

Yen: Early talents often feel passionate about something, and that's all they end up doing. I've seen this happen to many people and they get burnt out. Be known for doing something that's part of the traditional business of your job, but in addition, do other things so you're not just known for one thing.

How do women do some of what you've recommended today to promote ourselves in the workplace?

Lightfoot: In seeking out mentors, just ask somebody. It's that simple. You might be shocked, but those of us who do mentoring learn a lot more from you than you do from us. Whether or not we take you on, we can certainly refer you to others.

Wallaert: I'll make it slightly stronger: Be selfish. I don't mind being bothered, but I don't have time to chase you. I always have time to take your call. We socialize women into patterns that we punish them for, such as asking them not to interrupt. We need to move past that.

HIGHLIGHTS FROM THE BREAKOUT SESSIONS

Diversity and Equity, The Role of Diversity in Building Excellent Teams

Thought Leaders:

- Janet Sellars, Acting Associate Administrator for Diversity and Equal Opportunity, NASA
- Dan Krieger, Special Assistant for Diversity and Inclusion, NASA's Goddard Space Flight Center



People can spend their entire careers in one organization doing just one thing, but stepping out of one's comfort zone to acquire new and different experiences can add to a diversity of thought and skills, both for the individual and the organization. From an organizational perspective, it is important to develop a supportive work culture that encourages women to succeed, particularly if they self-

advocate and feel passionate about a particular matter. We need to give people permission to showcase themselves, and this often entails hiring and nurturing employees who show promise and potential instead of focusing exclusively on the best and brightest.

In times of urgency, there is an overwhelming tendency for organizations to assign projects to go-to individuals – those with a proven track record of success in completing specific tasks. This is often acceptable, but there should also be a focus on developing new

eaders should support and encourage employees to step out of their comfort zones to gain new skills and experiences.

talent. Otherwise, talent will be left on the table and organizations will fail to leverage the potential and skills at their disposal. Becoming less reliant on go-to individuals may be a risky proposition in some instances, but at NASA and other organizations, risk is part of the business model. There are no better risks to take than those on your own people.

Fulfilling the promise of all employees requires leaders to be intentional in their actions. For example, leaders should support and encourage employees to step out of their comfort zones to gain new skills and experiences. These are the instances when real learning occurs. People learn to become comfortable by first becoming uncomfortable. In addition, organizations should make the most of generational differences by soliciting input from employees of different ages. Explore the commonalities of your personnel, but also embrace the different learning styles and expectations. This is critical to building the talent pipeline and succession planning, ensuring that knowledge is efficiently transferred from employee to employee.

Throughout it all, people need to feel empowered to raise tough issues on gender, race, disabilities and generational differences. Encouraging such dialogue can increase the comfort level across an organization, facilitate efforts to build more diverse teams and optimize the potential within a workforce.

- Build and expand diverse teams by mixing the best and brightest with those who show promise and potential. Facilitate knowledge transfer by encouraging early career employees to participate on projects with seasoned employees.
- Empower individual team members to chart their careers with highly visible assignments.
- Establish mechanisms or informal ways for individuals to share job success stories and the value of mentoring and coaching.
- Provide leaders opportunities to increase awareness of their own unconscious biases as well as their individual reactions to people who may be different.
- Incentivize managers to be creative and inclusive. Foster team building to define problems in addition to solving them.
- Hold an annual program to recognize and acknowledge leaders who actively engage in diversity and inclusion efforts.

Mentorship and Advocacy

Thought Leaders:

- Robert Lightfoot, Acting Administrator, NASA
- Lesa Roe, Acting Deputy Administrator, NASA (resigned September 2017)

There are several things leaders of organizations, both men and women, need to continue doing to sustain women in STEM as it relates to mentorship an advocacy. First and foremost, they should continue to personally mentor women in STEM, both formally and informally, and pay it forward to the next generation of leaders. They should provide role models of women in STEM and support, encourage and foster trust in women within their organizations.

Stop stereotyping women and making assumptions regarding lifestyle and competency.

Similarly, there are things they must stop doing to remove unnecessary barriers for women in STEM fields. For example, they must stop stereotyping women and making assumptions regarding lifestyle and competency. All discussions about careers should focus on competency, and the women alone should be allowed to decide their own lifestyles. Women shouldn't automatically be routed to support roles, and token behavior should be discouraged. The same individuals shouldn't be sent to all meetings or assigned to all projects,

and men should be included in discussions about diversity and the challenges women face. So-called "manteruptions," in which men get credit for ideas proposed by women, must be put to an end.

Finally, there are actions leaders must begin to take or do differently. If it doesn't already exist, leaders should create a culture in which women feel included, heard and valued. This means proactively assigning women to key projects and providing the necessary training for them to assume more responsibility and take on more complex assignments. A culture in which more women are included in senior management roles will allow them to serve as role models for all women within the organization. By creating a culture in which employees are aware of gender-based biases, leaders can

become more intentional in addressing those biases and holding their organizations accountable for changes that must take place. In such a culture, female leaders should advocate more for and be supportive of all women, and all leaders should put more resources toward mentoring programs to help women progress throughout their careers.



- Continue to mentor those in your own reporting structure, but also be open to mentoring both formally and informally women in others areas of the organization when they seek guidance.
- Use technology to mentor individuals outside of physical boundaries and create a menu of mentoring options within an organization. This includes mentoring via Skype or teleconferencing platforms to broaden reach and increase mentoring opportunities.
- Change the cultural environment and provide opportunities for women to network and collaborate with each other, along with their male colleagues. For example, collaboration can be supported by creating project teams with both junior and senior women.
- Stop "manteruptions," in which men take credit for women's ideas. Encourage women to openly share their ideas, and ensure all voices are given the same level of credit.
- Create conscious work assignments for female leaders by allowing them to make appropriate decisions based on their management level and functional responsibility.



Why We Should Sweat the Small Stuff: Understanding the Impact of Microinequities in the Workplace

Thought Leaders:

- Lisa Callahan, Vice President and General Manager, Civil and Commercial Space, Lockheed Martin
- Jamison Hawkins, Director, Civil Space and Environmental Programs, Lockheed Martin

Microaffirmations and microinequities are

little things that can boost or bring down someone's confidence, respectively. We must be aware that bias is at the root of all positive and negative micromessages. This begins at the individual level, knowing that we bring such biases to the workplace, perhaps the consequence of being part of a dominant workplace group — either along gender or racial lines. It is incumbent upon each person to take action in order to interrupt and mitigate these biases. This entails being courageous and voicing our concerns when we see behavior that undermines inclusivity. At one point or another, everyone has felt excluded in some way. These experiences, and the emotions one felt at the time, can serve as a catalyst to help ensure that others don't go through the same.

In order to bring this level of awareness to the team level, we need to respond more often to challenges and less often react. The former suggests the crafting of a deliberate and thoughtful response, as opposed to an emotional reaction, in the face of bias. Effective responses should identify the problem, understanding why it surfaced, and recommend an action or solution going forward to alleviate the issue and prevent similar situations from happening in the future, all while keeping the human element in mind.

Replicating bias awareness can be a little more difficult at the organizational level, partly because of the demographic makeup of an organization's leaders. At Lockheed Martin, white male leaders have often expressed a disconnect with many of the diversity and

No person leaves their humanity at the door when coming into the workplace. We all have issues that we are dealing with, and we may approach matters differently from one another, but we still work together under a common business purpose every day.

inclusion perspectives of the workforce. One remedy, which has shown promising results, has been to bring in an external group intent on showcasing these issues from a detached and impartial viewpoint.

At every level – individual, team and organizational – we must remember that no person leaves their humanity at the door when coming into the workplace. We all have issues that we are dealing with, and we may approach matters differently from one another, but we still work together under a common business purpose every day. We need to be mindful of both the personal and business contexts to leverage this understanding for the benefit of the entire organization.

- Own your actions. No matter how well intentioned you may be, if your actions adversely impact someone else, take responsibility, engage in dialogue and apologize for what you've done.
- Commit to doing something small every day to show a fellow team member that they're valued for what they bring to the table, both in the personal and business contexts.
- Be intentional about seeking out different perspectives and asking substantive questions about people's workplace experiences, both positive and negative.
- Specifically, although not exclusively, seek out the male perspective and understand their biases to continuing creating strong allies for everyone across the organization.



Training and Empowerment

Thought Leader:

Chris Scolese, Director, NASA's Goddard Space Flight Center

In order to leverage training and empowerment to promote, sustain and nurture women in STEM disciplines, organizations should first understand their unique institutional cultures and subcultures. Large organizations tend to have subcultures or directorate-level cultures. This institutional characteristic was described as a "cultural system of systems" phenomenon. The group stressed the importance of ascertaining the cultural, or organization-specific, elements that are barriers to the empowerment of women and men in STEM fields. It was further established that in order to identify organizational and institutional biases in the workplace, relevant cultural assessments should be conducted to understand the specifics of the biases.

Ensure that training is done on a continual basis to educate employees on organizational core values on diversity and inclusion

Leaders and organizations should ensure that training is done on a continual basis to educate employees on organizational core values on diversity and inclusion, from new employees to senior leaders, who have the responsibility of making the business case for diversity and inclusion. Mentoring was identified as an effective vehicle for training and empowerment of women in STEM careers. However, individual personality and compatibility attributes should be considered during mentoring arrangements. The group suggested that in order to cultivate "good seeds" for gender equality, diversity and inclusion in organizational cultures, mentoring programs should

be structured to encourage and support experienced women in leadership to mentor men and women in the workplace. Experienced men – particularly advocates of gender equality, diversity and inclusion – in leadership should also mentor women and men.

Organizations and leaders should develop a comprehensive toolkit that will contain stories and experiences that highlight specific actions that both men and women have taken, demonstrating their buy-in and commitment to diversity and inclusion or portraying the times when they fell short of the expectations. The toolkit resources should include intentional and strategic content that aligns diversity with business goals. Leaders should go a step further by demonstrating the value of diversity to business objectives and performance.

- Provide opportunities for individuals, teams and projects to learn about their cultures and how to improve them.
- Conduct relevant cultural assessments to understand which systems and institutional practices support biases and lead the implementation of improvement strategies.
- Facilitate and lead implementation of programs that highlight the benefits of diversity, and in so doing demonstrate diversity as a business imperative and not an initiative.
- Create "safe space" for critical and open conversation on diversity, gender equality and inclusion. Leaders and supervisors should be trained to understand the risks associated with

- these kinds of conversations as well as the opportunities that they present for organizational improvement and performance.
- Train and educate human capital professionals on how to set up diverse interview panels and hiring processes that ensure fairness from a diversity, gender equality and inclusion standpoint.
- Consider making use of the cultural education toolkit mandatory for new employees, strategically placed managers and project leaders.



Workplace Environment

Thought Leaders:

- Sandra Evers-Manly, Vice President, Global Corporate Responsibility, Northrop Grumman
- Gene Fraser, Vice President; Programs, Quality and Engineering; Northrop Grumman

Driving diversity and inclusion for women in STEM is a difficult process, especially in multilayered organizations. It is critical to ensuring and strengthening our country's leadership in the global competitive marketplace. It is also about creating equal opportunities for everyone and having the right workplace environment that allows everyone to perform at their highest level and be recognized for their contributions. However, the tone at the top may not necessarily match the mood in the middle or the buzz at the bottom. Organizations must find ways to ensure that direction from senior leadership becomes institutionalized, something that an agency such as NASA has done well to date. The first question to consider, however, is how big is the sense of urgency around this issue. Is this a top priority within the organization, and how often do people meet to discuss it? There are many external organizations with benchmarking data, and considering what others are saying about your own organization may create the sense of urgency if there isn't one already. This is the same with social media, since they provide an outlet for employees or former employees to voice their concerns. Such feedback should be regarded as constructive, and organizations should consider reassessing their priorities if necessary.

Think of your current state as a point in a journey, and don't fear talking about setbacks along the way to show how far you've come and where you're going.

To further induce this cultural transformation, organizations need to design with the future in mind. They must conduct conversations about their current state. From there, they should determine what actions they should take to reshape the workplace environment into one that is more inclusive and diverse. Storytelling is one way to make this happen, since it can keep an organization honest. Organizations too often highlight only the positive stories when talking about themselves. Instead, think of your current state as a point in a journey, and don't fear talking about setbacks along the way to show how far you've come and where you're going. Make sure to measure and monitor your progress through engagement or employee surveys to determine how well you're changing the culture.

Finally, organizations should take steps to increase advocacy, especially in their middle layers. Diversity and inclusion are often priorities at the top, but less often in the middle – the "thickest" level of organizations in which a lot of the hiring decisions are made. Such advocacy, furthermore, should be

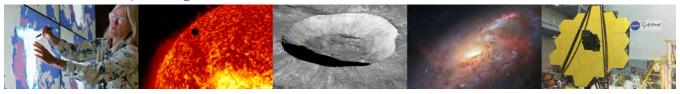
instilled in men because there are more of them than women in the middle layer. Throughout the organization, however, you should make sure that you are bringing everyone to the table in all your conversations. Senior managers should remain visible, engaged and vocal every step of the way.

increase advocacy.

- Leverage employee resource groups to host discussions with managers about an organization's direction on diversity, gender equality and inclusion.
- Consider utilizing surveys to hold employees across all levels accountable for their actions in regards to promoting an inclusive work environment.
- Use social media as tools for showcasing an organization's diversity, equality and inclusion programs in order to attract and retain talent and clients.
- Implement mentoring programs that include participation from both male and female leaders in order to encourage men to become gender diversity champions. This would also expand the availability of executive coaching for women who want to advance in their careers.
- Develop training programs to help women leverage their abilities, build confidence and seek positions at the executive level.
- Establish training programs specifically designed to help prepare our current and future female leaders for professional career growth.
- Recognize that every employee has different demands in his or her personal life. Offer a number of flexible work-life solutions, such as child care, help for new parents, etc.

BACKGROUND

NASA's Goddard Space Flight Center



Based in Greenbelt, Maryland, NASA's Goddard Space Flight Center is a global provider of scientific research, technology and missions that transform our knowledge of Earth and space. Expert in the study of our world, the solar system and beyond, Goddard has been working since 1959 to increase scientific understanding, answer humanity's big questions, and benefit the society and communities we serve. The center's work in science, engineering, technology and communications strengthens our ability to envision the origins of life, preserve our way of living and define our place in the universe. We identify requirements and innovations; design, build and launch spacecraft; and manage and support entire space missions. Our fundamental communications infrastructure enables NASA and others to bring back knowledge from space, share it with diverse customers and apply it to society in countless ways.

Lockheed Martin



Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 125,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

Lockheed Martin Global Vision Center

The Lockheed Martin Global Vision Center (GVC) is a state-of-the-art meeting and collaboration facility located in Arlington, Virginia. It showcases the remarkable innovations that continue to serve Lockheed's customers throughout the world. From global security to commercial markets to scientific discovery, the GVC – an 86,000-square-foot customer engagement space – highlights how Lockheed is

helping the future arrive. In addition to a 160-seat auditorium, the center offers nine meeting rooms and six demonstration centers.



Northrop Grumman is a leading global security company providing innovative systems, products and solutions to government and commercial customers worldwide, offering an extraordinary portfolio of capabilities and technologies for applications from undersea to outer space and into cyberspace.